EXHIBIT 3

To stay in business, the Midwest Stock Exchange has gone in for electronic trading, bypassing the specialists.

If you can't beat 'em . . .

By Gary Slutsker

YOU BUY 1,000 shares of General Motors from a full-service stockbroker whose firm is a member of the New York Stock Exchange. Your commission will be around $500. If the broker sends your order to the Big Board to be filled, part of this commission, $26.50, or 2.65 cents a share, goes to the exchange itself.

But the New York Stock Exchange no longer has a monopoly on trading the stocks listed on it. The broker could equally well send your order to a regional stock exchange. Or he could send it to one of the new electronic trading systems operated by firms like Jefferies & Co. or Bernard L. Madoff Investment Securities (FORBES, *July 10, 1989*).

Bernie Madoff has become by far the biggest of these new age traders through a simple practice: He pays the brokers a penny a share to get their market orders. This saves that $26.50 fee per 1,000 shares to the NYSE, and puts a little extra money in the brokers' pockets.

But one man's saving is another man's loss, and the diversion of business is hurting the NYSE and other exchanges. As of September, Madoff alone handled about 10% of all trades in NYSE-listed stocks. Since 1980 the Big Board's share of trades in NYSE-listed stocks has dropped from 85% to 68%—a reason the price of a seat on the exchange has plunged from a precrash high of $1.15 million in 1987 to a recent $431,000.

How can Madoff afford to pay for the right to execute a trade? Simple. He lives off trading profits and the spread, the normal eighth-of-a-point difference between bid and asked.

Intelligent people can disagree as to whether this is good or bad for investors. Madoff and other electronic traders do cut transaction costs dramatically. But some critics argue they may reduce liquidity in markets. The Securities & Exchange Commission is about to begin a yearlong study that will generate some answers.

This much is clear: The established stock exchanges can ignore the Madoffs of the world only at their peril.

Charles Doherty isn't ignoring them. Doherty, 58, is president of Chicago's Midwest Stock Exchange, the country's largest regional exchange. The Midwest's share of trades in NYSE-listed stocks grew from just under 4% in 1980 to a peak of 11% in 1989—but has since dropped back to 8%, thanks to competition from off-exchange traders like Madoff.

To save his exchange, Doherty is converting the Midwest into a high-tech exchange, rivaling Madoff's. In 1991 he spent $13 million to develop fancy computer systems to route orders directly from its customers and execute those orders automatically.

One of Doherty's secret weapons is MAX, a proprietary software program that automatically fills certain orders at the best price quoted on the national Intermarket Trading System screen, bypassing specialists much of the time. That means that if your broker sends an order to the Midwest to sell 1,000 shares of IBM at 90, but the NYSE is advertising a bid of 90⅛, MAX will automatically execute the trade on the floor of the Midwest Exchange at the New York price.

Doherty has also told his specialists: If getting the business means paying the brokers for their orders as Madoff does, pay them.

With all this the Midwest Exchange has managed to hold on to its profitable block-trading business, which still requires the intervention of skilled human specialists as well as computers and accounts for about a third of the exchange's revenues. But this computerization squeezes the profits. Doherty's motto: Better squeezed than dead.

To meet the challenge of electronic traders, will the New York Stock Exchange adopt Chuck Doherty's aggressive defensiveness? Not if it means going to electronic trading. "The best deal in town is here," says NYSE Executive Vice President Lewis Horowitz. "It may not be the cheapest, but people know it's the best." ■

Gary Spector

Churchill & Klehr

ABOVE:
Electronic trader Bernie Madoff
RIGHT:
The Midwest's Chuck Doherty
Stock exchanges ignore the Madoffs of the world only at their peril.

Bernie Madoff pays brokers for the privilege of executing their orders. How can this be? He is taking advantage of an obsolete New York Stock Exchange rule that protects specialists at the expense of everybody else.

Living off the spread

By Richard L. Stern

On a recent weekday tourists waited more than 90 minutes to get into the New York Stock Exchange visitors' gallery for a glimpse into the inner workings of the American capitalist system. One elderly visitor was explaining to his young grandson that somewhere in the noisy bustle below them, grandpa's gift of 100 shares of AT&T had been filled.

Not necessarily, Grandpa. In today's stock trading, things are seldom what they seem.

As things now work, an order to buy or sell New York Stock Exchange-listed securities may or may not be executed there. It may instead be executed on a regional exchange. Or it may never have gone to an exchange floor at all but to a small midtown Manhattan firm called Bernard L. Madoff Investment Securities, which is not a member of the exchange but nevertheless makes markets in the Big Board's 250 biggest-trading stocks.

Why should stock exchange members deal with Bernie Madoff instead of with each other? Simple. It's often cheaper to execute the customer's order through Madoff than on the floor of an exchange.

Madoff won't say which firms are sending him orders. This is a sensitive area because his customers don't want to offend the Big Board or its specialists. But over 100 member firms are doing business with Madoff. These include A.G. Edwards & Co., Minneapolis-based Dain Bosworth, Texas' Rauscher Pierce Refsnes and—especially—big discounters like Charles Schwab & Co., Quick & Reilly and Fidelity Brokerage Services.

Each morning, Bernie Madoff's 20 traders sit in front of computer screens on the 18th floor of a midtown Manhattan office building. When they go home in the evening, the 20 will have handled execution of about 2% of the volume in NYSE-listed stock—sometimes as many as 5 million shares.

Why do brokers deal with Bernie Madoff? Simple. He saves them money. Not only does he not charge the usual specialists' commissions and Big Board fees, but he will often pay the brokers a small fee for the privilege of executing their orders as well.

What goes on here?

It's very simple. Bernie Madoff lives off the spread between bid and asked, a spread that usually amounts to one-eighth of a point on shares of the most liquid stocks.

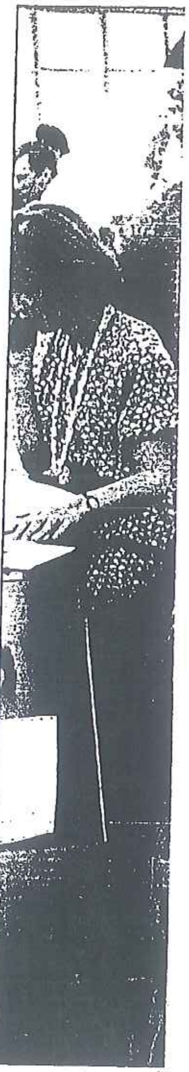
In addition to pocketing the spread as their price for maintaining liquidity, the specialists charge the brokers an average 1¾ cents a share to hold limit orders. That's $17.50 for 1,000 shares. It may not sound like a lot of money until you realize that a discount broker gets maybe $171 commission for 1,000 shares of a $40 stock; $99 for 1,000 shares of a $10 stock. Doing business with Madoff can make the difference between making a profit and just breaking even on a small trade.

That's for limit orders. On average, an executive of one large firm estimates he pays $6 an order in direct costs in transaction fees and specialist charges for a New York Stock Exchange execution. On regional exchanges like the Pacific and the Midwest stock exchanges, the average trade is at least 75% cheaper, but it still costs maybe $1.25 an order.

Madoff can save the brokers the $1.25 or $6 per order, but he goes further: He actually pays them for the privilege of executing some of their orders. He pays the brokers—something under one cent a share—for the orders they send him. "Not only do I save 1¾ cents a share on a limit order, Madoff gives me a penny," says an official of a small broker/dealer. "That's a 3-cent turnaround as far as I'm concerned." On a 1,000-share order, that works out as a saving of $30.

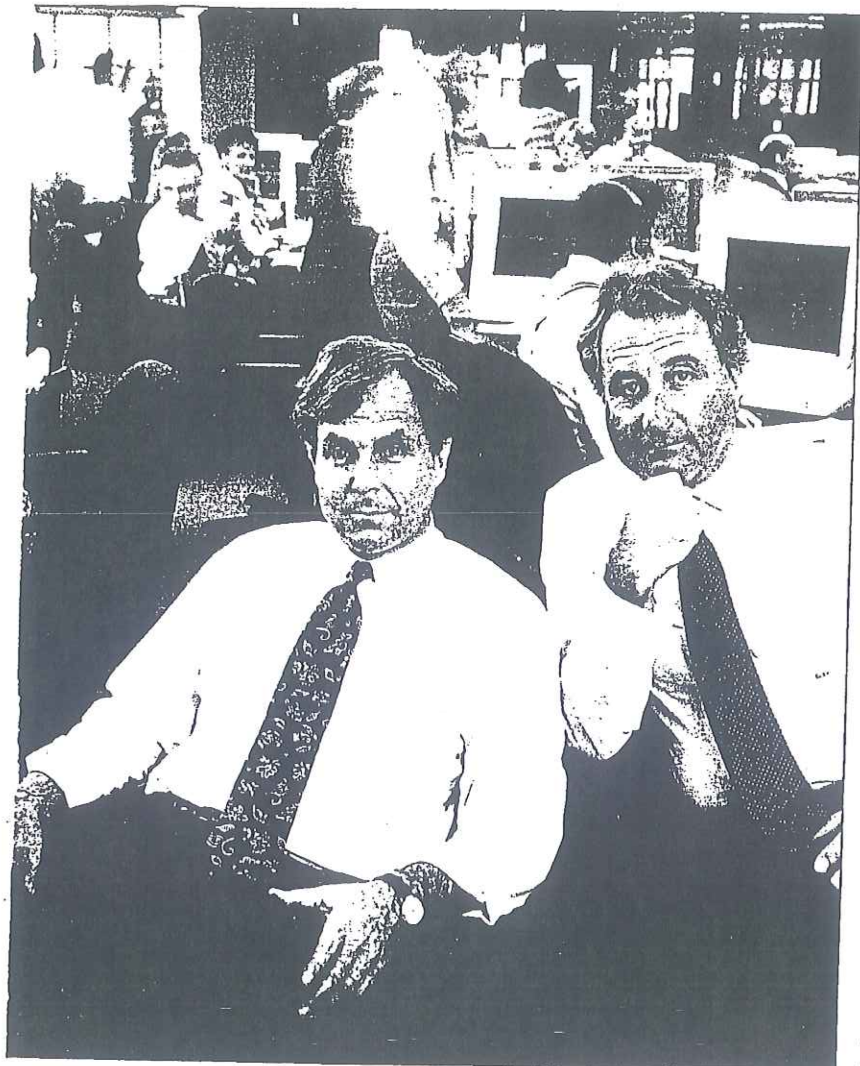
Does the broker's customer get a raw deal when orders go to Madoff? Probably not. Madoff guarantees to buy or sell orders of up to 3,000 shares at the best price quoted among the New York and regional exchanges. That's the best "bid" when a customer is selling and the best "ask" when a customer is buying. Moreover, Madoff's guarantee of 3,000 shares is frequently larger than what Big Board specialists are willing to guarantee.

In some cases, the ultimate customer might do better on the floor. An exchange gives the buyer's broker a chance to meet the seller's broker and possibly strike a price at what brokers call "in between the spread." That is, at prices that are better than the best bid or ask.



Say, for example, a stock is 29¾ bid, 30 asked. On an exchange, it is possible that a buyer could get the stock at 29⅞. But this works only for the less actively traded stocks. On active stocks—GM, IBM, AT&T—the spread isn't wide enough to permit that kind of bargaining. Madoff points out that he deals only in the biggest Big Board stocks, where the spreads generally are so small there's no margin for investors to do better.

Bernie Madoff, 51, has gotten very rich living off the spread. He grew up in a middle-class section of the New York City Borough of Queens and never quite finished Brooklyn Law School. He won't say how much his firm makes, but the word is that despite hard times on The Street, Ma-



Peter and Bernie Madoff in their small trading room
Even their own monopoly won't last forever.

Gary Spector

doff is very profitable. During the last few years, even through the tough years of 1987 and 1988, he added about $8 million a year to the firm's capital position—which recently was $50 million, according to Security & Exchange Commission documents.

Madoff founded his firm in 1960 to do riskless arbitrage and make a market in over-the-counter stock. To make money in these highly competitive businesses, he had to work with complex computer systems—and that has been the key to his success. Visit the offices of Madoff Investment and you may be taking a walk into the future of stock trading. Unlike in most trading rooms, where negotiations are still done largely by telephone, the phones hardly ring. When they do, it is for orders of over 3,000 shares, which are negotiated. Anything under 3,000 shares, that is to say 95% of the orders, is handled by their computers.

An order comes in from computers at Charles Schwab & Co. to buy 3,000 shares of IBM, for instance. Madoff's computer software system, designed by his younger brother, Peter, 43, director of trading, automatically sells the stock at the best "ask" price in the markets and sends a confirmation back to Schwab untouched by human decision or hands. Time elapsed: 4 seconds.

The computer executions lower Madoff's costs, of course. But Madoff's computer operation is far more sophisticated than one designed solely to cut handling costs. A key to profitability in marketmaking is the ability to hedge positions, Madoff explains. Once the computer has that IBM stock it just bought, it shows the trader various ways of hedging his position and the costs. It even shows the carrying costs for not hedging. That hedging is done by Peter Madoff's software system. The Madoffs' computer hedging is far ahead of anything that the specialists have.

Why can't member firms simply make markets for their customers in listed securities, as Madoff does? The New York Stock Exchange won't let them. The Big Board protects a kind of monopoly by its specialists through the NYSE Rule 390. This essentially prevents most Big Board members from making markets for their own accounts in most NYSE-listed securities. That forces the members to bring orders either to the New York floor, to another exchange or to someone like Madoff.

Madoff saw opportunity in this rule in the mid-1970s through the Cincinnati Stock Exchange, a near-defunct attempt to create a fully electronic, computerized stock exchange. Madoff spent over $250,000 upgrading Cincinnati's computers and began making markets in listed stocks.

The advantage of Cincinnati for Madoff is that, as an accredited exchange, it allows him to participate in an intermarket trading system put into place in the late 1970s at the insistence of the SEC to lessen New York's monopoly on the nation's biggest stocks.

Bernie Madoff is very much aware that his own monopoly won't last forever. Deregulation is everywhere in the air, and Big Board monopoly via Rule 390 will one day cease.

At least two congressional agencies currently are investigating whether the rule violates congressional mandates for a national market system that would be more efficient and fairer to investors.

One day, probably sooner rather than later, there will be a nationwide computerized system that, with luck, will preserve the present exchange auction system, which allows customer orders to meet within the spread. It will also eliminate specialists and floor brokers and let buying broker and selling broker meet without intermediary. The technology is not new or difficult. The New York Stock Exchange has been a major hindrance. Bernie Madoff just has the first fully automated firm to show brokers the economic benefits of getting rid of Rule 390. ■